Florida Findings from a 2009 Precision Farming Survey of Cotton Farmers

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OBJECTIVES

To evaluate the use of precision farming by cotton farmers in Florida.

SCOPE OF STUDY

Florida farmers with registered sales of cotton to Cotton Incorporated ®. Of the 193 active farmers in 2008, which represents a 28% since 2004, 27 returned completed surveys for a 14% response rate. About 85% of respondents were located in Santa Rosa, Escambia, and Jackson Counties. The survey was part of a larger study that included cotton farmers in 12 Southeastern U.S. states.

FLORIDA FARMER INFORMATION

Average age: 53 years (range: 35-87 years)
High school/GED completion rate: 96% (Bachelors: 17%)
Computer use for farm management: 50% (in the field: 4%)
Average farm experience: 30 years (range: 10-60 years)
Share of income from farming: 74% (range: 10-100%)
Avg dryland cotton area – owned (59%): 169 (range: 20-626 ac)
Avg dryland cotton area – leased (70%): 400 (range: 65-1,850 ac)
Avg dryland cotton yield: 1,021 lbs/ac (range: 500-1,500 lbs/ac)
Own a cotton picker: 64%
Share with conservation or agricultural easements: 47%

PRECISION FARMING FOR COTTON IN FLORIDA

Precision farming (PF) entails the assessment of site-specific land and crop needs in order to develop efficient production plans, which usually entails a needs assessment within narrowly defined geographic areas.

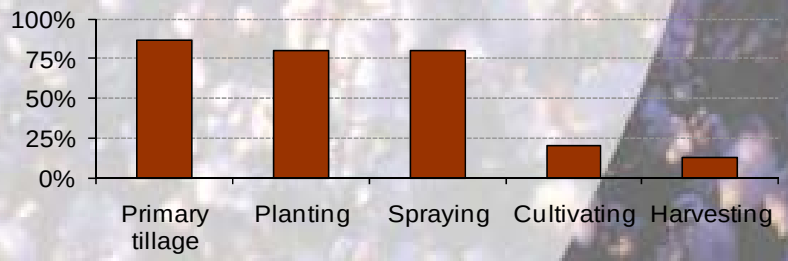
By 2009, 70% of Florida cotton farmers had adopted at least one precision farming technology and 86% believe that it will be profitable for them to use precision farming technologies in the future. Variable rate management decisions for cotton were only reported for fertility or lime and information gathering technologies were restricted to yield monitors and soil sampling.

None of the respondents reported abandoning any precision farming technology that they have adopted.

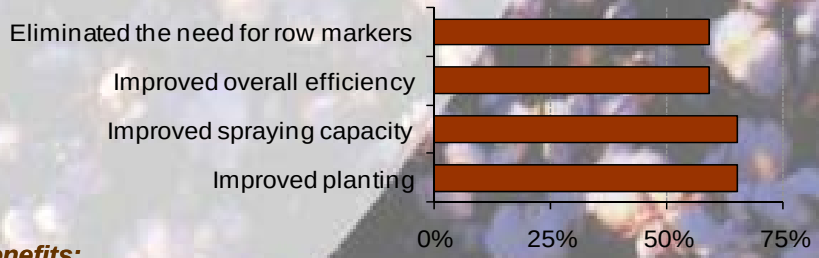
Of those that have reported adopting precision farming technologies, 17% reported improvements in cotton quality and 43% reported improvements in environmental quality.

GPS GUIDANCE SYSTEMS

Use in Field Operations:



Reasons for Adopting:



Benefits:

1. **Reduced operator fatigue**
2. **Labor cost savings**
3. **Input cost savings**
4. **Fuel cost savings**
5. **More time to do other things**

CONCLUSIONS

While 70% of cotton farmers in Florida have adopted some precision farming technologies, an even higher percentage (86%) reported that future use of these technologies would be profitable to them. This potential increase in demand is promising but may be hampered by insufficient information on costs. For example, non-adopters estimated the average cost of a GPS cotton yield monitor system at $12,816 but their estimates ranged from $2,500 to $70,000. Of the respondents that owned such systems, 88% reported they met their expectations.